CLAIMS:

1. A method of converting a stream of databits of a binary information signal into a stream of databits of a constrained binary channel signal, wherein the stream of databits of the binary information signal is divided into n-bit information words, said information words being converted into m_1-bit channel words in accordance with a channel code C_1, or m_2-bit channel words, in accordance with a channel code C_2, where m_1, m_2 and n are integers for which it holds that $m_2 > m_1 \geq n$, wherein the m_2-bit channel word is chosen from at least two m_2-bit channel words, at least two of which have opposite parities, the concatenated m_1-bit channel words and the m_2-bit channel words complying with a runlength constraint of the binary channel signal,

characterized in that

the method comprises the repetitive and/or alternate steps of:

- selecting the m_1-bit channel word from a set out of a plurality of sets of m_1-bit channel words, each set comprising only m_1-bit channel words having a beginning part out of a subset of beginning parts of the m_1-bit channel words, each set being associated with a coding state of channel code C_1, the coding state being established in dependence upon an end part of the preceding channel word,

or:

- selecting the m_2-bit channel word from a set out of a plurality of sets of m_2-bit channel words, each set comprising only m_2-bit channel words having a beginning part out of a subset of beginning parts of the m_2-bit channel words belonging to said set, each set being associated with a coding state of channel code C_2, the coding state being established in dependence upon an end part of the preceding channel word,

the end parts of the m_1-bit channel words in a coding state of channel code C_1 and the beginning parts of the m_2-bit channel words in a set of channel code C_2 being arranged to comply with said runlength constraint.

2. A method according to claim 1, characterized in that the number of coding states of channel code C_1 is equal to the number of coding states of channel code C_2.

3. A method according to claim 1 or 2, characterized in that the end part of any m_1-bit channel word has a multiplicity y_1, the multiplicity y_1 being the number of different states of the channel code C_1 said end part may establish, and that the end part of any m_2-bit channel word has a multiplicity y_2, the multiplicity y_2 being the number of states of the channel code C_2 said end part may establish and in that $y_1 = y_2$ if the end part of the m_1-bit channel word is equal to the end part of the m_2-bit channel word.

4. A method according to claim 1, 2 or 3, characterized in that said at least two m_2-bit channel words establish the same state.

5. A method according to claim 1, characterized in that the sets of channel words of channel code C_1 and the sets of channel words of channel code C_2 are arranged that binary channel signal formed by the concatenated m_1-bit channel words and the m_2-bit channel words comply with a d=2 constraint and a k=10 constraint.

6. A method according to claim 1 or 5, characterized in that the sets of channel words of channel code C_1 and the coding states of channel code C_2 are arranged that binary channel signal formed by the concatenated m_1-bit channel words and the m_2-bit channel words comply with a Repeated-Minimum-Runlength-Limitation = 6 constraint on the binary channel.

7. A method according to claim 1, characterized in that $n = 8$, $m_1 = 15$, $m_2 = 17$.

8. A method according to claim 1, 2, 3 or 4, characterized in that the ratio between the number of m_1-bit channel words and the number of m_2-bit channel words is determined in dependence of a chosen measure of DC-control.

9. A method according to claim 1, characterized in that the coding state is further being established in dependence upon the n-bit information word, thereby allowing to distinguish this n-bit information word by detecting the coding state.

10. A method as claimed in claim 1, 2, 3 or 4, characterized in that the coding states of channel code C_1 and the coding states of channel code C_2 are further arranged that a limited number of channel words is substituted for other channel words or patterns, these

other channel words or patterns not belonging to the sets of channel words of channel code C_1 and channel code C_2.

11. A device for encoding a stream of databits of a binary information signal into a stream of databits of a constrained binary channel signal, for performing one of the methods as claimed, the device comprising an n-to-m_1-bit converter for converting the n-bit information words into m_1-bit channel words, an n-to-m_2-bit converter for converting the n-bit information words into m_2-bit channel words, state-establishing means for establishing a coding state of the m_1-bit channel words and of the m_2-bit channel words, which n-to-m_1 bit converter is further arranged for selecting the m_1-bit channel word depending on the end part of the preceding channel word, which n-to-m_2 bit converter is further arranged for selecting the m_2-bit channel word depending on the end part of the preceding channel word.

12. A device for encoding according to claim 11, characterized in that the device further comprises writing means for writing an information pattern on a record carrier.

13. A signal comprising a stream of databits of a constrained binary channel signal, obtained after carrying out one of the methods as claimed.

14. A record carrier on which the signal as claimed is recorded in a track, in which information patterns represent the signal portions, which information patterns comprise first and second parts, alternating in the direction of the track, the first parts presenting detectable properties and the second parts presenting detectable properties which are distinguishable from the first properties, the parts having the first properties representing bit cells having the first logic value and the parts having the second properties representing the bit cells having the second logic value.

15. A device for decoding a stream of databits of a constrained binary channel signal into a stream of databits of a binary information signal, the device comprising converting means for converting the signal as claimed into a bit string of bits having a first or a second value, the signal containing the m_1-bit channel words and the m_2-bit channel words, the bit string comprising the n-bit information words, the converting means being arranged to convert the m_1-bit channel words and m_2-bit channel words into n-bit information words, wherein one information word is assigned to one channel word to be converted.

16. A device for decoding according to claim 15, characterized in that the device further comprises reading means for reading out an information pattern from a record carrier.